

U.S. Serial No. 09/869,984
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II. AMENDMENTS TO THE CLAIMS

1. (Currently amended) A process for hydroprocessing a petroleum feedstock, which feedstock contains both nitrogen and sulfur, which process comprises contacting a feedstock with a bulk multimetallic catalyst comprised of at least one Group VIII non-noble metal and at least one Group VIB metals and wherein the ratio of Group VIB metal to Group VIII non-noble metal is from about 10:1 to about 1:10, provided that the bulk multimetallic catalyst is represented by the formula:



wherein X is a Group VIII non-noble metal, the molar ratio of b:(c+d) is 0.5/1 to 3/1, and z = [2b + 6(c+d)]/2, which process is performed at temperatures from about 260°C to about 427°C (500°F to about 800°F), pressures from about 791 to about 6996 kPa (100 to about 1000 psig), gas rates from about 89 to about 1780 m³/m³ (500 to about 10,000 standard cubic feet per barrel), and feed rates from about 0.1 to about 100 liquid hourly space velocity.

2. (Currently amended) The process of claim 1 wherein the Group VIII non-noble metal is selected from Ni and Co and the Group VIB metals are selected from Mo and W.

3. (Currently amended) The process of claim 1 wherein two Group VIB metals are present as Mo and W and the molar ratio of c:d is about 9:1 to about 1:9 >0.01/1.

4. (Cancelled)

5. (Currently amended) The process of claim 4-1 wherein the molar ratio of b:(c+d) is 0.75/1 to 1.5/1.

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6. (Currently amended) The process of claim 4- 1 wherein the molar ratio of c:d is ~~>0.01/4~~ 1/10 to 10/1.

7. (Original) The process of claim 1 wherein the bulk multimetallic catalyst is essentially an amorphous material having a unique X-ray diffraction pattern showing crystalline peaks at d = 2.53 Angstroms and d = 1.70 Angstroms.

8. (Original) The process of claim 1 wherein the feedstock is comprised of at least 50 wt.% of distillate product from an atmospheric distillation process.

9. (Currently Amended) The process of claim 1 wherein the temperature is from about 302°C to about 371°C (575°F to about 700°F).

10. (Currently Amended) The process of claim 1 wherein the pressure is from about 1480 to about 5617 kPa (200 to about 800 psig).

11. (Currently Amended) The process of claim 10 wherein the pressure is from about 2179 to about 3549 kPa (300 to about 500 psig).

12. (Previously added) The process of claim 1 wherein the gas rate is from about 134 to about 890 m³/m³ (750 to about 5,000 standard cubic feet per barrel).

13. (Previously added) The process of claim 1 wherein the feed rate is from about 0.3 to about 5.0 liquid hourly space velocity.